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## NORTH CENTRAL HIGH SCHOOLS

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### INTRODUCTION

In view of the remarkable development of the public high school within recent years and the increased demands made upon it, facts pertaining to the organization and administration of high schools are significant. The schools in the North Central states have been subjected to more or less inspection for the past forty years, during which time the accrediting system providing for admission to college by certificate has become almost universal. Through this system the schools of each state have been subjected to more or less definite standardizing pressures. Differences in standards, however, from state to state and indeed within the same state have always been noticeable. In 1895 the North Central Association of Colleges and Secondary Schools was organized with the idea of setting up standards which might be attained by a selected group of schools in a number of states. This association has met with cordial support from the colleges and secondary schools. Today there are nearly 800 schools distributed through the North Central states on the approved list, i.e., the principals of these schools have convinced the Board of Inspectors that the work is up to the standard named by the association.

The annual reports submitted by 667 of these schools for the year 1911-12 have been analyzed with the view of setting forth a body of facts relating to the group of schools on the list for 1912. These schools are distributed in the different states as shown in Table I.

It is to be noted in the foregoing that the number of schools in the different states varies from 15 in North Dakota to 104 in Illinois. For the most part the number of high schools in the various states on the North Central list fairly represents the total distribution of high schools

TABLE I

State	No. of Schools	State	No. of Schools
Colorado.....	30	Missouri.....	37
Illinois.....	104	Nebraska.....	35
Indiana.....	50	North Dakota.....	15
Iowa.....	57	Ohio.....	97
Michigan.....	77	Wisconsin.....	87
Minnesota.....	58		

of the various types within each state. There are hundreds of small high schools throughout this territory that are accredited only within a single state by the state's own accrediting agency. Some of the differences are, no doubt, due to the fact that some states are more adequately equipped for inspecting these schools than are others, i.e., there are probably many schools not on the North Central list simply because of a lack of enough inspectors to visit them.

#### SIZE OF SCHOOLS

The actual enrolment of the high school is of importance in connection with the enforcement of standards. It is possible for the enrolment to be so small that the number found in the Senior class who will go to college is insufficient to justify either the high school or college in attempting to coördinate their work. Small enrolment means that classes must be small, which condition quickly places a limit on the number of elective courses or units which can be provided in the high school. On the other hand the small high school may mean a more narrowly selected group of students with a narrower range of interests and abilities.

There is rather wide variation within each state in regard to the enrolment of the approved schools; yet the median enrolment shows definite differences in this particular in the various states. This is shown in Table II.

TABLE II

State	Median Enrolment	State	Median Enrolment
Colorado.....	206	Missouri.....	204
Illinois.....	143	Nebraska.....	137
Indiana.....	244	North Dakota.....	112
Iowa.....	184	Ohio.....	215
Michigan.....	200	Wisconsin.....	184
Minnesota.....	140		

An interpretation of this table shows that one-half of the schools on this list in Colorado have an enrolment of 206 or fewer; in Illinois of 143 or fewer; in Indiana of 244 or fewer, etc. The high schools of Indiana, Ohio, Michigan, Colorado, and Missouri on the accredited list are decidedly larger than those in the other states.

Variations in the enrolment of high schools in the different states means variation in regard to the difficulty of conforming to the standards set up by the association. The large high school might have no difficulty in maintaining courses and conditions meeting the requirements for students going to college and at the same time be able to maintain many other courses for students with other interests. In other words, in case the school on this list is so small that a single course is offered, this course must conform to the North Central standard; hence the possibility of the coercive influence of such standards.

*Size of cities<sup>1</sup> supporting these high schools.*—The variation in the size of cities maintaining schools listed for approval by this association is of interest. The high schools of practically all the large cities are on the list; however, one-third of the whole number of approved schools are in towns of 5,000 or less; two-thirds in cities of 10,000 or less. Thus it is seen that the association has been an influential force in the small cities and towns.

TABLE III

State	Median Population	State	Median Population
Colorado.....	7,500	Missouri.....	7,500
Illinois.....	9,250	Nebraska.....	4,700
Iowa.....	4,700	North Dakota.....	3,430
Indiana.....	9,000	Ohio.....	8,200
Michigan.....	8,750	Wisconsin.....	4,700
Minnesota.....	5,830		

Table III shows the median size of cities in the various states supporting approved high schools. Rather striking contrasts appear in comparing Illinois with North Dakota or Iowa. The median size of cities in Iowa, Nebraska, and Wisconsin is practically the same. Illinois, Indiana, Michigan, and Ohio seem to belong to another group. Again, it is significant that such a large number of small towns and cities are willing to conform to the prescribed standards.

<sup>1</sup> Throughout the rest of this paper the word "cities" will be used to refer to both towns and cities.

*Enrolment and population.*—The variation in the size of cities and in the size of high schools is shown in Table IV. The cities are classified as A, B, C, etc., on the basis of population, Class A cities having a population of 2,500 or less; Class B cities having a population of 2,501 to 5,000, and so on.

TABLE IV  
COMBINED SUMMARY

Total Enrolment	A	B	C	D	E	F	G	Total
	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and above	
Under 50.....	4	4	I	.....	I	.....	.....	10
51 to 75...	11	8	2	.....	.....	I	3	26
76 to 100...	14	20	8	I	2	.....	3	50
101 to 125...	25	34	16	I	5	2	3	86
126 to 150...	12	33	20	4	4	5	.....	78
151 to 175...	4	25	17	5	I	.....	.....	52
176 to 200...	I	19	11	2	8	.....	.....	41
201 to 225...	.....	4	I	7	3	4	.....	19
226 to 250...	2	10	18	19	9	I	.....	59
251 to 275...	.....	.....	5	4	3	5	2	19
276 to 300...	.....	5	7	10	10	11	I	44
301 to 350...	I	.....	4	6	10	11	2	34
351 to 400...	.....	.....	I	5	5	8	3	22
401 to 450...	.....	.....	.....	3	4	10	.....	17
451 to 500...	.....	.....	.....	.....	.....	10	4	14
501 to 550...	.....	.....	.....	.....	I	8	2	11
551 to 600...	.....	.....	.....	.....	.....	8	I	9
601 to 650...	.....	.....	.....	.....	.....	3	3	6
651 to 700...	.....	.....	.....	.....	I	5	I	7
701 to 750...	.....	.....	.....	.....	.....	3	4	7
751 to 800...	.....	.....	.....	.....	.....	I	2	3
801 to 850...	.....	.....	.....	I	.....	I	3	5
851 to 900...	.....	.....	.....	.....	.....	I	2	3
901 to 950...	.....	.....	.....	.....	.....	I	3	4
951 to 1,000...	.....	.....	.....	.....	.....	.....	2	2
1,001 to 1,050...	.....	.....	.....	.....	.....	I	3	4
1,051 to 1,100...	.....	.....	.....	.....	.....	.....	I	I
1,101 to 1,150...	.....	.....	.....	I	.....	.....	2	3
1,151 to 1,200...	.....	.....	.....	.....	.....	.....	2	2
1,201 to 1,250...	.....	.....	.....	.....	.....	.....	5	5
1,251 to 1,300...	.....	.....	.....	.....	.....	.....	2	2
1,301 to 1,350...	.....	.....	.....	.....	.....	.....	I	I
1,351 to 1,400...	.....	.....	.....	.....	.....	.....	I	I
1,401 to 1,450...	.....	.....	.....	.....	.....	.....	.....	.....
1,451 to 1,500...	.....	.....	.....	.....	.....	.....	3	3
1,501 to 1,600...	.....	.....	.....	.....	.....	I	3	4
1,601 to 1,700...	.....	.....	.....	.....	.....	.....	I	I
1,701 to 1,800...	.....	.....	.....	.....	.....	.....	3	3
1,801 to 1,900...	.....	.....	.....	.....	.....	.....	I	I
1,901.....	.....	.....	.....	.....	.....	.....	.....	.....
	74	162	111	69	67	101	73	667



This table should be read thus: Of the high schools enrolling fewer than 51 pupils four were in cities with a population of 2,500 or under; four in cities of 2,501 to 5,000 population; one in a city of 5,001 to 7,500 population, etc. An analysis of this table, by reading from left to right, brings out the striking variation in the size of the city in which is found a given-sized high school. For example, high schools with an enrolment of 101 to 125 are found in towns and cities of practically all sizes. Reading from the top to the bottom, one can see the wide variation in the size of high schools in cities of the same class. For example, cities of 2,500 and under are supporting accredited high schools varying in size from 50 or less to 301-350; cities of 7,501 to 10,000 have high schools as small as 100 and as large as 850. It is seen that one-eighth of all of these schools enrol 100 or fewer students; one-half, 200 or fewer; three-fourths, fewer than 351. The middle 50 per cent of the schools enrol from 125 to 350 pupils. Ought not these central tendencies and these variations be considered in determining standards for accrediting?

The material presented in Table IV is of value in comparing cities in relation to high-school enrolment and population. In case of a desire to compare the high-school enrolment of a particular city with the enrolment in other cities of the same class, the following plan might be carried out. Let us say that the city has a population of 4,500 and an enrolment of 100. Now referring to Table IV above, we find that the city is in class B. By running down the column headed "Total Enrolment" to 76-100, then to the right, to column B, it is found that 20 cities in this class have an enrolment of 76 to 100; thus other cities of this class have the same sized high schools. However, when it is noted that there are data for 162 high schools in cities of this class, it becomes important to find its relation to the whole group of schools. The answer is 130, or 80 per cent of the cities show a larger enrolment while only 7 per cent show a smaller enrolment. As a means of ready reference the following table of medians might be used. This table shows the median enrolment for each class of cities.

Class	A	B	C	D	E	F	G
Median enrolment.....	109	162	175	243	250	450	841
No. cases.....	74	162	111	69	67	101	73

*Number of teachers and enrolment.*—One index of the adequacy of the provision made for the high school in any community is the number of

TABLE V  
CORRELATION OF TEACHERS AND ENROLMENTS

Total No. of Teachers	50	51 to 100	101 to 150	151 to 200	201 to 250	251 to 300	301 to 350	351 to 400	401 to 450	451 to 500	501 to 550	551 to 600	601 to 650	651 to 700	701 to 750	751 to 800	801 to 900	901 to 1,000 and Over	Total
4	15	32	30	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	78
5-6	12	56	55	28	7	...	I	...	...	...	...	...	...	...	...	...	...	...	159
7-8	2	16	34	32	33	7	...	...	...	...	...	...	...	...	...	...	...	...	124
9-10	4	4	8	12	22	11	6	...	...	...	...	...	...	...	...	...	...	...	69
12	...	2	I	8	10	16	10	2	2	I	...	...	...	...	...	...	...	...	52
14	I	...	I	...	4	7	8	5	4	...	...	...	...	...	...	...	...	...	30
16	...	2	I	...	3	3	5	4	5	I	...	I	...	...	...	...	...	...	25
18	...	I	...	...	...	4	4	4	3	4	I	...	I	...	...	...	...	...	22
20	...	...	...	...	...	...	I	2	2	2	2	I	...	2	2	...	...	...	12
22	...	2	I	...	...	...	...	2	I	2	3	I	...	...	...	...	...	...	13
24	...	...	...	...	...	...	...	I	...	...	...	...	I	...	I	...	...	...	8
26	...	26	...	...	...	...	...	...	...	...	...	...	I	I	I	...	...	...	9
28	...	...	...	...	...	...	...	...	...	...	...	...	I	I	I	...	...	...	4
30	...	...	...	...	...	...	...	...	...	...	...	...	I	I	...	I	3	...	6
32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
34	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
36	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
38	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
40	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
42	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
44	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
46	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
48	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
50	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
52	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
54	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
56	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
58	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
62	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
66	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
68	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
70	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
72	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
74	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
76	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
78	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
100	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Median teachers	34	113	131	81	79	48	35	20	18	16	6	9	6	6	8	8	8	32	660
	4	5	5	7	8	11	12	16	15	20	20	24	25	25	28	36	32	50	

teachers employed. Inasmuch as the North Central Association refuses to approve a school with fewer than four teachers, this is the smallest number of teachers reported. However, wide variation exists in practice in regard to the number of teachers in these schools. The range is from 4 to 100 and above, in schools enrolling fewer than 50 to 1,000 and over. "Four-teacher" schools vary in enrolment from 50 or less up to 151-200; "six-teacher" schools vary from 50 or less to 301-350. The complete distribution is given in Table V.

From the foregoing table it is seen that wide variation exists in regard to the number of teachers employed and the actual size of the high school. For example, of the 34 high schools enrolling 50 or fewer students the number of teachers varies from 4 to 13 or 14. Again, reading from left to right, 9- to 10-teacher schools are found enrolling as few as 50 pupils, and as many as 300 to 350 pupils. Certainly the opportunity for work in the schools represented by these extremes is not the same. Standards that could be met readily in the school with 10 teachers and 50 pupils might be impossible in the schools with the same number of teachers and 350 pupils.

*Differences from state to state.*—Certain differences in the size of school represented by the number of teachers appears in an analysis of the material in the different states. Table VI shows the median number of teachers in the different states.

TABLE VI

State	Median No. of Teachers	State	Median No. of Teachers
Colorado.....	9	Missouri.....	6
Illinois.....	9	Nebraska.....	5
Indiana.....	10	North Dakota.....	7
Iowa.....	7	Ohio.....	8
Michigan.....	8	Wisconsin.....	6
Minnesota.....	8		

It is seen that the schools in Indiana are relatively large while the schools in Nebraska are relatively small.

In order to bring out more clearly the differences in the various states, Table VII has been prepared.

The meaning of this table becomes clear when read as follows: In Colorado the six-teacher schools have a median enrolment of 150; the

eight-teacher schools have a median enrolment of 208. In Illinois the six-teacher schools have a median enrolment of 100 and the eight-teacher schools, an enrolment of 133, etc. These figures indicate that the different states are meeting the problem of the distribution of the number of pupils per teacher on somewhat different lines.

TABLE VII

State	Median Enrolment	6	8
		No. of Teachers	
Colorado.....	" "	150	208
Illinois.....	" "	100	133
Indiana.....	" "	140	250
Iowa.....	" "	100	125
Michigan.....	" "	106	120
Minnesota.....	" "	75	110
Missouri.....	" "	110	175
Nebraska.....	" "	87	137
North Dakota.....	" "	75	125
Ohio.....	" "	175	225
Wisconsin.....	" "	150	196

In view of these differences in enrolment for the same sized teaching force it would seem that the outside standardizing agencies would affect these schools with widely varying pressures. Is it not probable that many criticisms of the pressures brought to bear by accrediting agencies are due to just this variation? Surely some schools find it much more of an effort to conform to the North Central Association standards than others. It would be of interest to know more about the comparative results attained in the schools of Ohio and Indiana with relatively large numbers of pupils per "six-" and "eight-teacher" school, as compared with Iowa and Michigan with relatively small numbers of pupils.

*Standard ratio of teacher to enrolment.*—Table VIII, showing the median number of teachers per enrolment unit, should enable school authorities to determine quickly the status of a particular school in this connection.

*Average number of students per teacher.*—Another way to consider the provision which different communities make for their schools is by dividing the total number of students by the total number of teachers in the high school (taken irrespective of the number of recitations taught by

TABLE VIII

	Enrol- ments of 500 or less	51 100	101 150	151 200	201 250	251 300	301 350	351 400	401 450
Median number teachers.....	4	5	5	7	8	11	12	16	15

	Enrol- ments 451 500	501 550	551 600	601 650	651 700	701 750	751 800	801 850	851 1,000 and Over
Median number teachers.....	20	20	24	25	25	28	36	32	50

the teacher). The average number of pupils per teacher calculated on this basis varies from as low as 5 pupils per teacher to as high as 50 pupils per teacher. Table IX shows this variation.

TABLE IX

Total No. Students per Teacher	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over
5.....	1	5	2	.....	1	.....	.....
10.....	15	14	5	1	2	2	7
15.....	15	23	21	10	8	11	3
20.....	24	51	37	20	23	34	9
25.....	16	44	30	20	23	30	28
30.....	2	20	9	12	8	16	12
35.....	.....	3	5	5	1	3	1
50.....	1	.....	.....	.....	.....	2	1
No. cases.....	74	160	109	68	66	98	61
Median.....	20	20	20	20	20	20	25

This table becomes clear when read thus: Of the 74 cities of 2,500 in population and under, one city employs a high-school teacher for every 5 pupils; 15 employ one teacher for every 10 pupils; 24 employ one teacher for every 20 pupils; 16 employ one teacher for every 25 pupils; two cities employ one teacher for every 30 pupils, and one city employs one teacher for every 50 pupils.

It is noteworthy that no clear correlation exists between the average number of students per teacher and the size of city; small cities adhere quite as closely to the central tendency in this particular as do the larger

cities until the population reaches 50,000; e.g., the employment of one teacher for every ten pupils is found in cities of every class. The median number of pupils per teacher, however, for each class is identical in all cities below 50,000 population.

This table is of interest in that it shows a fairly well standardized tendency in this particular. However, within the variations set forth it would seem probable that such striking differences in practice would be accompanied with equally striking differences in school achievement. The opportunity for individual contact between teacher and pupil is certainly far different in a city with an average of 5 or 10 pupils per teacher than in a city with an average of 30 to 50 pupils per teacher. Such differences surely call for different schemes of organization and administration if similar results are to be attained. In the face of such differences there can be but little doubt that the pressures of outside standardizing agencies fall with unequal intensity on the different schools. It would be of great administrative value to have a quantitative measure of the differences in achievements actually attained in these schools. If the results are the same when the ratio is 1 to 30 as it is where the ratio is from 1 to 10 in towns of the same class, we should know it.

#### ORGANIZATION

*Number of daily recitations.*—The number of daily recitations which a school provides is one measure of the flexibility or adaptability of the curriculum to the needs of the children. The four-year high school with a single curriculum and no electives with each class reciting daily will ordinarily offer 16 recitations per day. If the students are to be given

TABLE X

State	Range of No. of Recitations	Median No. of Recitations per Day
Colorado.....	15-100	40
Illinois.....	15-195	38
Indiana.....	15-155	50
Iowa.....	15-175	39
Michigan.....	20-150	38
Minnesota.....	15-230	38
Missouri.....	15-130	35
Nebraska.....	15-345	25
North Dakota.....	15- 75	25
Ohio.....	15-235	38
Wisconsin.....	15-105	35

a choice, additional recitations must be provided. A wide range of electives in the small high school is unusual, partly because of the fact that a small enrolment means a narrower range of individual differences and partly because of the distaste on the part of the pupils and the teachers for the very small classes which necessarily follow, e.g., a Senior group of ten pupils does not permit of very many elective divisions. The exact distribution of the range in the number of recitations per day in the different states is given in Table X. This table should be read thus: In Colorado the number of recitations offered in the high schools on this list ranges from 15 to 100, with a median of 40; in Illinois the range is from 15 to 195, with a median of 38 and so on. The median number in Indiana is twice as large as Nebraska or North Dakota.

The minimum of 15 recitations found in practically all states indicates the effect of the college-entrance requirement of 15 units. A study of these figures suggests again that some of the schools are barely able to meet the North Central standard, while others, so far as the number of recitations is concerned, might offer a wide range of courses to suit many different tastes and abilities.

*Relation between number of recitations and size of city.*—It is important to know the distribution of the number of recitations offered in relationship to the population within the territory. Table XI shows this relationship and the variation in number of recitations offered in cities of the same size; for example, of the 71 cities of 2,500 population or under maintaining high schools on this list, two have 15 recitations; thirteen, 16 to 20 recitations; seventy-six, 21 to 25 recitations; while one maintains 46 to 50 recitations. Similar variations are to be noted in the cities of each class. Reading from left to right, schools of 21 to 25 recitations are being maintained in cities of every class.

Half of all of the high schools represented have more than 35 recitations per day. The conflict between the so-called demands of the community and the demands of the standardizing agencies present a much less difficult problem for solution in the high school having many recitations, than in the school having few recitations. It may be seen that hundreds of these cities might be able to offer widely diversified courses of study without increasing the number of daily recitations at all. The factor of imitation, however, is so strong that pupils tend to elect the same courses so that no doubt thousands of these recitations are merely duplicate "sections" in the same subject.

TABLE XI

No. Daily Recitations per School	A	B	C	D	E	F	G
	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over
15.....	2	4	1				
16- 20.....	13	1	4	1	2		2
21- 25.....	26	31	12	1	2	2	2
26- 30.....	11	44	17	4	2	2	
31- 35.....	9	30	23	5	5	4	1
36- 40.....	5	24	11	8	7	1	1
41- 45.....	4	9	11	6	7	8	
46- 50.....	1	3	12	10	7	1	3
51- 55.....		3	4	8	5	7	
56- 60.....		1	4	2	6	6	1
61- 65.....			1	3	6	3	2
66- 70.....				2	4	5	
71- 75.....				4	1	7	1
76- 80.....				2	1	3	
81- 85.....				1	3	3	
86- 90.....					1	5	
91- 95.....					1	3	1
96-100.....						4	1
101-105.....						4	
106-110.....					1		
111-115.....							2
116-120.....						1	
121-130.....						4	1
131-140.....						2	
141-150.....						1	4
151-175.....							1
176-190.....						1	1
191-200.....							3
201-225.....							4
226-345.....							1
	71	150	100	57	61	77	32

Median for all—35.

Table XII shows the standard number of recitations offered in the towns of various sizes (based on medians).

TABLE XII

## STANDARD NUMBER OF RECITATIONS BASED ON POPULATION

	CLASS OF TOWN						
	A	B	C	D	E	F	G
No. of cases.....	71	150	100	57	61	77	32
Median No. Daily Recitations ...	23	29	34	47	49	70	107



*Number of daily recitations taught by the teachers.*—In view of the standard set up by the North Central Association recommending that no teacher teach more than five recitations a day and prohibiting a teacher from teaching more than six recitations a day, it is interesting to note the wide variations that exist in the actual number taught. Table XIII

TABLE XIII

Total No. of Daily Recitations	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over	Total
1.....	7	24	16	12	15	19	6	100
2.....	12	23	29	11	25	33	17	150
3.....	21	48	38	20	33	73	22	265
4.....	62	111	132	40	76	156	44	621
5.....	135	341	273	198	263	567	419	2,196
6.....	121	348	216	171	208	249	204	1,515
7.....	1	5	4	5	2	10	2	29
8.....	.....	1	.....	1	3	1	.....	6
9.....	.....	.....	.....	.....	.....	1	.....	1
	359	901	708	458	626	1,109	714	4,875

shows this variation, distributed for population of cities. This table becomes clear when read as follows: There are seven teachers in cities of 2,500 or under who have one recitation only; twelve with two recitations only; twenty-one with three recitations only, etc. It is to be noted that of the 359 cases in cities of this population the range of recitation taught by teachers is from one to seven. In cities of 2,500 to 5,000 the range is from one to eight, etc. The numbers in the right-hand column indicate the wide range of variation. There seems to be no great difference in this particular in the large and small cities, as the small city seems to be almost as likely to provide for a small number of daily recitations for each teacher as does the large city. The most frequent arrangement is for each teacher to teach five recitations, yet it should be noted that there are 1,136 teachers with fewer than five recitations and 1,541 teachers with more than five recitations. Indeed there are 36 teachers with more than six recitations, which is a *violation of the standard of the Association*. The exact number of recitations that each teacher should be asked to teach is still an unsolved problem. This is a question of importance not only on account of the financial cost involved, but because of its educational implication. The wide variation in practice suggests the desirability of comparing results attained by the systems using different plans.

*The superintendent as a teacher.*—Considerable interest has been shown in regard to the exact amount of teaching done by the superintendent. Table XIV shows the extent of teaching on the part of the superintendents throughout the states (Indiana not included in this table). It is to be noted that slightly over half of the 496 superintendents report the teaching of one or more recitations per day in the high school.

TABLE XIV

Total	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over
0.....	6	28	39	36	42	54	26
1.....	12	40	28	6	6	5	.....
2.....	22	47	14	3	3	4	1
3.....	18	12	4	.....	.....	.....	.....
4.....	9	9	6	3	2	.....	2
5.....	1	2	1	.....	1	1	1
6.....	.....	2	.....	.....	.....	.....	.....
	68	140	92	48	54	64	30
Percentages.....	91	80	57	25	32	15	13

In the 86 cities of 2,500 or under reporting, 12 superintendents teach one recitation, 22 teach 2 recitations, 18 teach 3 recitations, 9 teach 4, and 1 teaches 5, recitations. The same variation exists in cities of 2,501 to 5,000 population. So that there seems to be no definite policy in connection with the exact number of recitations to be taught each day by the superintendent in the smaller cities. As the cities grow larger a decreasing percentage of superintendents teach, as is shown by the decrease from 91 per cent to 13 per cent. At least two questions are involved in connection with the teaching done by the superintendent. One is the fact that the time which is given to teaching of necessity limits the amount of supervision possible in the high school or in the elementary school. This is of significance in view of the fact that such a large number of teachers are inexperienced. Surely the time spent in teaching by the superintendent is an important limitation in the matter of training teachers in service. On the other hand, the fact that superintendents do teach in the high school gives them a certain intimate contact with the high school which should be of value.

*State differences.*—Certain variations are to be observed in the percentage of superintendents who teach in the different states.

TABLE XV

State	Percentage of Superintendents Who Teach	State	Percentage of Superintendents Who Teach
Colorado.....	46	Missouri.....	35
Illinois.....	50	Nebraska.....	57
Iowa.....	40	North Dakota.....	73
Michigan.....	34	Ohio.....	25
Minnesota.....	48	Wisconsin.....	57

These differences in policy parallel somewhat closely the differences in the size of the high school. A larger percentage of superintendents teach in states with small high schools than in states with large high schools.

*Length of recitation period.*—A minimum standard of “40 minutes in the clear” for each recitation is set up by the Association. Wide variations exist in actual practice. Table XVI shows the length of the recitation period in minutes distributed for the various sized cities. Two well-defined modes appear in this table, 40 minutes and 45 minutes. There seems to be no relation between the size of cities and the length of recitation period as the central tendency and the variations are evenly distributed throughout the different-sized cities. Evidently factors

TABLE XVI

Total Length in Minutes	A	B	C	D	E	F	G
	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Above
35.....	I						
39.....		I					
40.....	42	88	58	27	25	42	23
41.....		I		I			
42.....	5		I	I	I	2	5
42½.....	I	4	2	I			
43.....	2	10		2	I	I	7
44.....		2	2		I		2
45.....	20	56	47	38	37	51	29
47½.....						2	3
50.....	I						3
53.....					I		
55.....	I		I		I	I	I
60.....						I	
80.....			I				
	73	162	112	70	67	101	73

other than the pressure of the standards set up by the Association are at work, because over half of the cities provide a longer period. No striking differences are to be found among the different states in this particular.

*Large classes.*—The Association has sought to discourage large classes by setting thirty in a class as the maximum to be allowed. Many schools have violated this standard; the actual extent of this violation is shown in Table XVII. This table should be read thus: In cities of 2,500

TABLE XVII

Total No. Classes with Over 30 Pupils	A	B	C	D	E	F	G	Total
	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Above	
0.....	55	115	69	49	36	49	30	403
1.....	7	18	17	9	9	7	3	70
2.....	7	13	20	5	7	13	7	72
3.....	2	3	5	1	6	14	3	33
4.....		1	1	1	3	4	1	11
5.....					3	6	3	12
6.....		1		2	2	2	2	9
7.....		2			1	1	2	6
8.....				1			1	2
9.....							1	1
10.....							2	1
11.....							1	2
12.....							1	1
13.....		1					1	1
14.....						1	1	2
15.....						1	1	2
20.....							2	2
22.....							1	2
30.....							1	1
31.....							1	1
32.....							1	1
91.....							1	1
116.....							1	1
	71	154	112	68	67	98	68	638

population or under, 55 have no classes enrolling more than 30 pupils; 7 have one class with more than 30; 7 have 2 classes with more than 30; 2 have 3 classes with more than 30. Cities of all sizes violate this standard, but the large cities are the worst offenders. Summarizing, it is seen that slightly over one-third of the cities violate the standard by having from 1 to 116 classes enrolling more than 30 pupils. In view of

this situation it would seem wise to do one of two things—either abolish the standard or revise it.

*Length of school year.*—The North Central Association makes a requirement that the school year shall be at least 36 weeks in length. Table XVIII shows the distribution in this particular. This table should

TABLE XVIII

Total No. Weeks	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over
32.....		1		1			
36.....	58	111	61	44	27	30	7
37.....				1			1
38.....	12	33	34	6	25	41	21
39.....							
40.....	4	16	16	17	15	30	43(42-1)
	74	161	112	69	67	101	73

be read thus: Of the 74 cities with a population of 2,500 and under, 58 have a 36 weeks' term 12, have a 38 weeks' term, and four have a 40 weeks' term, etc. Only two schools fail to reach the standard of the Association. On the other hand, over 300 schools are maintained for a period longer than required by the Association. Three well-defined modes appear, 36, 38, and 40 weeks. This is probably due to the fact that people customarily think of the school year in terms of months and half-months, rather than terms of weeks; and payments are usually made on the basis of an even number of weeks.

## INSTRUCTIONAL STAFF

*Sex of superintendents.*—In view of the increase in the number of women employed in the public schools, it is important to know the extent to which women have been selected to fill the executive positions in the schools of the North Central Association list. Table XIX shows the

TABLE XIX

Sex	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over
Male.....	70	159	108	68	62	95	66
Female.....	3	1	1	.....	1	3	1
	73	160	109	68	63	98	67

distribution of the superintendents as to sex. This table should be read as follows: Of the 73 cities of 2,500 or under, 70 of the superintendents are men and 3 are women, etc. Out of the 637 superintendencies listed for sex, only 10 are filled by women.

*Sex of high-school principals.*—High-school principalships have attracted women in greater numbers than have city-school superintendencies. Table XX shows the exact distribution of high-school principalships as to sex. This table should be read as follows: Of the 73

TABLE XX

Sex	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over
Male.....	41	107	89	57	57	92	65
Female.....	32	50	17	11	8	5	2
	73	157	106	68	65	97	67

cities with a population of 2,500 or under, 41 employ male, and 32 employ female principals. Of the cities of 2,501 to 5,000 population, 107 employ male principals and 50 employ female principals. Out of a total of 643 principalships, 125 women are employed, which is in striking contrast to the number of women employed as superintendents, in the same cities. However, certain differences are to be noted in the cities of the different sizes; the small city of 2,500 or under employs more than half of all of the women principals at work in these schools. Table XXI shows the percentage of women employed as principals in the different-sized cities. This table should be read thus: In cities of 2,500 or under, 43 per cent of the principals are women, etc. From these figures it would seem that the positions of larger responsibility as measured by the population of the city in which the high school is located are not filled by women. This may be due to the attitude of the women themselves or to the attitude of the communities.

TABLE XXI

	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over
Percentage women principals.....	43	31	16	16	12	5	3

*Sex of high-school teachers.*—The high schools in this territory have attracted women as teachers in far greater numbers than as principals. The exact extent of this is shown in Table XXII. This table becomes

TABLE XXII

Sex	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over
Male.....	71	274	220	215	241	524	406
Female.....	292	646	561	414	444	887	708
	363	920	781	629	685	1,411	1,114

clear when read as follows: Of the 363 teachers employed in cities of 2,500 or under, 71 are men and 292 are women; of the 922 teachers employed in towns of 2,501 to 5,000, 226 are men and 646 are women, etc.

Out of a total of 6,303 teachers, 69 per cent are women. However, differences are to be noted here also in connection with the larger percentage in the smaller cities as is shown by Table XXIII. This table should be read thus: In cities of 2,500 or less 80 per cent of the teachers are women, etc. Summarizing the data for sex distribution of superintendents, high-school principals, and high-school teachers it can be said that at present the women are rarely to be found in the field of supervision; that about one-fourth of the principalships chiefly in the smaller towns are filled by women; and that over two-thirds of the teaching positions are filled by women, although the proportion of women is considerably higher in the smaller than in the larger cities.

TABLE XXIII

	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over
Percentage of women.....	80	70	71	66	65	62	63

*Salaries of superintendents in schools represented.*—Table XXIV shows the salaries paid to the superintendents of the schools distributed on a basis of population of cities concerned. In the 66 cities of 2,500 and under reporting on this item there is a wide variation. Three cities pay

TABLE XXIV

Total Salary of Superintendents	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over
\$1,000.....					1		
\$1,001-\$1,100...	3						
1,101- 1,200...	6	3					
1,201- 1,300...	7	11	5				
1,301- 1,400...	10	14	3			1	
1,401- 1,500...	19	25	8	1	1		
1,501- 1,600...	8	29	12	2	2		
1,601- 1,700...	5	20	9	3	2		
1,701- 1,800...	2	15	29	13	2	1	
1,801- 1,900...		5	3	5			
1,901- 2,000...	3	8	16	19	13	5	
2,001- 2,100...		4	2	4	6	4	
2,101- 2,200...	1	2	4	5	8	11	
2,201- 2,300...	1			1	4	3	1
2,301- 2,400...				1	2	5	
2,401- 2,500...			2	4	3	14	
2,501- 2,600...			1		1	8	
2,601- 2,700...	1			1	4	6	
2,701- 2,800...		1	1		2	3	
2,801- 2,900...						1	
2,901- 3,000...		1		1	5	13	5
3,001- 3,200...						1	
3,201- 3,300...						6	1
3,301- 3,500...				2		2	4
3,501- 4,000...							4
4,001- 4,500...							3
4,501- 5,000...							11
5,001- 5,800...							2
5,801- 6,000...							16
6,001- 7,000...							5
7,001-10,000...							1
Median.....	66 \$1,500*	138 \$1,600	95 \$1,800	62 \$2,000	56 \$2,500	84 \$5,000	53

\*From \$1,401 to \$1,500, etc.

\$1,001 to \$1,100; six, \$1,101 to \$1,200; seven, \$1,201 to \$1,300; while one pays \$2,700. The same variation is found in the larger cities.

*Salaries of principals.*—Table XXV shows the salaries paid to the high-school principal, distributed on a basis of population of city concerned. (Data are lacking for Colorado.) In the 67 towns of 2,500 or under reporting on this item there is a wide variation. Four cities pay \$601 to \$650; three, \$651 to \$700; six, \$701 to \$750; while one pays \$2,000. The same variation is found in the larger cities.



TABLE XXV

Total Salary of Principals	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over
\$ 600 .....	.....	.....	.....	.....	.....	1	.....
\$ 601-\$ 650...	4	.....	.....	1	.....	.....	.....
651- 700...	3	7	2	.....	.....	.....	.....
701- 750...	6	11	1	.....	.....	.....	.....
751- 800...	16	13	5	.....	1	.....	.....
801- 850...	4	5	3	.....	.....	.....	.....
851- 900...	7	18	7	2	1	.....	.....
901- 950...	1	3	1	.....	.....	.....	.....
951- 1,000...	5	19	12	1	2	.....	.....
1,001- 1,050...	.....	1	5	1	.....	.....	.....
1,051- 1,100...	2	13	14	8	3	.....	1
1,101- 1,150...	.....	1	.....	.....	1	.....	.....
1,151- 1,200...	5	12	25	13	10	1	1
1,201- 1,250...	.....	.....	3	2	2	.....	.....
1,251- 1,300...	1	4	7	12	7	1	.....
1,301- 1,400...	4	2	2	7	7	8	1
1,401- 1,500...	6	7	1	7	8	12	.....
1,501- 1,600...	.....	7	2	2	5	13	2
1,601- 1,700...	2	7	3	.....	.....	5	.....
1,701- 1,800...	1	7	4	1	5	15	2
1,801- 1,900...	.....	1	.....	3	1	5	2
1,901- 2,000...	1	2	3	.....	3	15	2
2,001- 2,100...	.....	.....	.....	3	.....	2	1
2,101- 2,200...	.....	1	1	1	.....	5	6
2,201- 2,300...	.....	.....	1	.....	1	1	.....
2,301- 2,400...	.....	.....	.....	.....	.....	1	3
2,401- 2,500...	.....	.....	.....	.....	.....	5	3
2,501- 2,600...	.....	.....	.....	.....	.....	.....	1
2,601- 2,700...	.....	1	1	.....	.....	.....	.....
2,701- 2,800...	.....	.....	.....	.....	.....	.....	1
2,801- 2,900...	.....	.....	.....	.....	.....	.....	2
2,901- 3,000...	.....	.....	1	.....	.....	1	24
3,001- 3,500...	.....	.....	.....	1	.....	3	8
3,501- 4,000...	.....	.....	1	.....	.....	.....	2
4,001- 4,500...	.....	.....	.....	.....	.....	.....	.....
4,501- 5,000...	.....	.....	.....	.....	.....	.....	.....
	67	142	105	63	57	94	62
Median.....	\$850*	\$1,000	\$1,100	\$1,300	\$1,400	\$1,800	\$3,000

\*From \$801 to \$850, etc.

*Maximum salary of teachers.*—Table XXVI shows the maximum salaries paid to the high-school teachers, distributed on a basis of population of cities concerned. (Data for Colorado are lacking.) In the 70 cities of 2,500 population or under there is a wide variation in maximum

TABLE XXVI

Total Maximum Salary	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over
\$ 500 .....			1				
\$ 501-\$ 550 .....	2	3					
551- 600 .....	2	6	2		2		
601- 650 .....	10	13	8	1			
651- 700 .....	11	17	8	2			
701- 750 .....	13	35	11	3	5		
751- 800 .....	10	17	20	4	5	1	
801- 850 .....	7	14	10	8	2	1	
851- 900 .....	3	16	11	13	7	9	
901- 950 .....	1	5	3	5	1	7	
951- 1,000 .....	4	6	15	16	10	13	1
1,001- 1,050 .....			2			4	
1,051- 1,100 .....	1	3	6	3	8	7	2
1,101- 1,150 .....		1			1	3	
1,151- 1,200 .....	4	2	4	3	7	11	5
1,201- 1,250 .....	1	1	1	2	2	1	
1,251- 1,300 .....			1	3	2	11	2
1,301- 1,400 .....		1	1		3	11	6
1,401- 1,500 .....		2	1		2	7	9
1,501- 1,600 .....				3	1	1	7
1,601- 1,700 .....					2	2	1
1,701- 1,800 .....				1	1	4	7
1,801- 1,900 .....							3
1,901- 2,000 .....	1	1				2	9
2,001- 2,100 .....							5
2,101- 2,200 .....							3
2,201- 2,300 .....							2
2,301- 2,400 .....							1
2,401- 2,500 .....							1
2,501- 2,600 .....							
	70	143	100	67	61	95	64
Median salary...	\$750*	\$750	\$850	\$950	\$1,100	\$1,150	\$1,600

\* From \$701 to \$750, etc.

salary paid. Ten cities pay a maximum salary of \$501 to \$550; ten, \$551 to \$600; ten, \$601 to \$650; while one pays \$2,000. Similar variations are found in the larger cities. Of the cities of 50,000 or over the maximum varies from \$1,000 to \$2,500.

*Minimum salary of teachers.*—Table XXVII shows the minimum salary paid to the high-school teachers, distributed on the basis of cities concerned. (Data for Colorado are not included.)

In the 70 cities of 2,500 population and under, there is a wide variation in the minimum salary paid. Thirteen cities pay not less than

TABLE XXVII

Total Minimum Salary	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over
\$ 300.....	.....	.....	.....	.....	.....	1	.....
\$ 301-\$ 450.....	.....	5	.....	.....	.....	.....	.....
451- 500....	13	11	4	4	1	2	1
501- 550....	21	24	18	6	4	4	.....
551- 600....	12	41	22	11	11	8	5
601- 650....	10	28	26	9	12	10	2
651- 700....	10	14	19	13	13	23	7
701- 750....	2	10	11	15	10	18	10
751- 800....	1	3	1	4	4	17	9
801- 850....	1	4	.....	.....	3	5	7
851- 900....	.....	2	4	2	1	2	5
901- 950....	.....	.....	.....	1	1	.....	.....
951- 1,000....	.....	2	.....	.....	.....	2	11
1,001- 1,050....	.....	.....	.....	.....	.....	1	.....
1,051- 1,100....	.....	.....	.....	.....	.....	.....	1
1,101- 1,200....	.....	.....	1	.....	.....	.....	1
1,201- 1,300....	.....	1	.....	.....	.....	.....	.....
Median salary...	70 \$600*	145 \$600	106 \$650	65 \$700	60 \$700	93 \$700	59 \$800

\*From \$551 to \$600, etc.

\$500; 21 pay not less than \$501 to \$550; 12 pay not less than \$551 to \$600; while one city pays not less than \$801 to \$850. The same variation is to be noted in the larger cities. For example, cities of 50,000 or over have a minimum salary as low as \$500 and as high as \$1,200.

A summary of the median salaries shown in the foregoing tables brings out the salary differences in a striking manner (Table XXVIII). This table should be read thus: In the cities of 2,500 or under, the

TABLE XXVIII

	CLASS OF CITY						
	A	B	C	D	E	F	G
Median salary of superintendent.....	\$1,500*	\$1,600	\$1,800	\$2,000	\$2,000	\$2,500	\$5,000
Median salary of high-school principals.....	850*	1,000	1,100	1,300	1,400	1,800	3,000
Median maximum salary of high-school teachers	750*	750	850	950	1,100	1,150	1,600
Median minimum salary of high-school teachers	600*	600	650	700	700	700	800

\*In the \$1,500 group, etc.

median salary of the superintendent is \$1,401 to \$1,500; the median salary of the high-school principal is \$801 to \$850; the median maximum salary of the high-school teacher is \$701 to \$750; the median minimum salary of the high-school teacher is \$551 to \$600, etc.

Comparison between the minimum and maximum salaries of the teachers and the high-school principals brings out the fact that there is less difference in the small cities than in the large cities. The small city offers fewer chances for a high salary reward in going from a minimum salary to a maximum salary. The median increase from minimum to maximum in the small city is only 20 per cent, while in the large city the increase is 100 per cent. The opportunity for a high salary in case of a change from a teaching position to a principalship or to a superintendency is likewise very much less in the small community. Despite the fact that the minimum salary of the large city is only slightly higher than in the small city, the teacher who goes to the large town has a very much better chance for promotion to higher salaries, either as teacher or as an executive. These facts no doubt contribute to the difference in experience and tenure which exists in the large cities and in the small cities. Increase in salary seems to be gained by a shift from small city to large city in each type of educational activity represented above, as there is a positive correlation with salary and size of town. It would be difficult to justify this procedure in view of the actual needs of the schools or the difficulty of the tasks. The small community has, within recent years, been buying the best in the way of school buildings and library equipment. It is possible that the difference in salaries could be so adjusted as to offer such inducements to the ambitious beginning teachers that they would not be constantly drawn off to the larger cities. Something might be said in favor of the French plan whereby the difference in salaries between the large and small community is supposed to be about enough to offset the differences in living expense, such as rentals and taxes.

*Total experience of the high-school teacher.*—The total experience of the high-school teachers in the best high schools in this territory is of significance on account of the fact that it is assumed that a teacher becomes proficient largely by experience. Therefore, it is important to know the extent of experience in order that we may know something of the amount of proficiency we have a right to expect.

TABLE XXIX

Total No. Years	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over
1.....	72	172	135	117	84	192	91
2.....	84	153	122	77	75	114	56
3.....	61	121	84	78	66	131	52
4.....	57	102	89	62	60	122	83
5.....	36	64	65	48	60	121	74
6.....	8	79	58	33	48	98	59
7.....	17	54	62	40	41	84	65
8.....	23	45	30	21	36	80	54
9.....	17	28	42	30	29	59	45
10.....	14	44	36	24	28	60	52
11.....	10	28	33	15	24	44	46
12.....	10	36	21	16	5	27	30
13.....	7	20	22	11	11	36	38
14.....	4	15	21	12	15	29	42
15.....	7	24	13	15	19	27	37
16.....	9	17	14	8	10	20	25
17.....	2	11	7	9	7	14	32
18.....	7	9	14	10	11	24	28
19.....	2	16	7	5	1	10	15
20.....	2	16	9	10	12	18	21
21.....	3	13	8	4	9	8	18
22.....	.....	7	5	5	6	13	17
23.....	2	3	2	8	4	12	8
24.....	4	5	7	4	2	7	13
25.....	.....	5	3	5	7	10	14
26.....	.....	13	4	5	9	8	8
27.....	4	3	4	2	6	4	15
28.....	2	4	.....	1	1	7	5
29.....	.....	3	4	3	2	2	1
30.....	.....	.....	4	3	4	4	7
31.....	1	3	.....	4	2	2	7
32.....	.....	3	.....	1	1	5	4
33.....	.....	.....	2	.....	.....	5	7
34.....	.....	3	5	.....	.....	.....	5
35.....	.....	1	1	.....	1	4	5
36.....	.....	1	2	1	.....	2	9
37.....	.....	.....	1	2	.....	4	.....
38.....	1	1	1	.....	2	1	1
39.....	.....	1	.....	.....	1	2	2
40.....	.....	1	.....	.....	1	.....	1
41.....	.....	2	1	.....	.....	.....	5
43.....	.....	.....	2	1	.....	.....	1
47.....	.....	.....	.....	.....	.....	.....	1
49.....	.....	.....	.....	.....	.....	1	.....
50.....	.....	.....	.....	.....	.....	.....	1
52.....	.....	.....	.....	.....	.....	.....	1
56.....	.....	.....	.....	.....	.....	1	.....
	466	1,172	940	690	709	1,512	1,111

Table XXIX shows the distribution of the number of teachers in relation to the total number of years' experience in teaching (irrespective of the type of school in which experience was gained). This table should be read as follows: Of the 466 teachers in cities of 2,500 or under, 72 have had one year or less of experience; 84, two years of experience; 61, three years' experience, etc. These figures reveal the wide variation that exists in the matter of the total number of years of experience in teaching.

The immaturity and lack of wide experience is shown by the fact that 13 per cent of these teachers have had one year's experience; 20 per cent have had two years' experience or less; 29 per cent have had three years' experience or less.

TABLE XXX  
MEDIAN YEARS OF EXPERIENCE

	CLASS						
	A	B	C	D	E	F	G
Number.....	466	1,172	940	690	709	1,572	1,111
Median years....	3+	4+	4+	4+	5+	5+	8+

Another way of looking at this same problem is shown in Table XXX. This table should be read as follows: Of the 466 teachers in cities of 2,500 or under, one-half have had three years' or less experience; half in the cities of 2,501 to 5,000 have had four years' or less experience, etc. The median experience ranges from three to eight years, the more experienced teachers being in the larger cities.

In view of the greater salary opportunities in the larger cities it is what we should expect. The cities which offer the greatest opportunity for promotion from minimum to maximum salaries are able to secure a group of teachers with a median experience about twice as large as that found in the smaller cities. It should be borne in mind that the superintendents in the smaller cities spend considerable of their time in teaching; consequently they are even less able to give adequate supervision for their relatively inexperienced teachers than are superintendents in the larger cities. This lack of supervision is even more serious in consideration of the fact that the communities employing the less experienced teachers necessarily employ a much larger proportion of teachers who are not fully given over to teaching as a profession than do communities employing teachers of much experience.

TABLE XXXI

Total	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over
0.....	248	474	436	237	329	614	439
1.....	49	139	108	80	91	202	117
2.....	45	102	71	81	60	132	87
3.....	29	82	60	42	49	75	58
4.....	22	52	42	31	32	54	49
5.....	18	44	51	33	28	56	52
6.....	9	28	28	24	18	40	40
7.....	9	27	16	8	18	28	37
8.....	11	14	16	14	10	27	21
9.....	3	7	15	15	14	19	19
10.....	2	11	16	11	5	27	30
11.....	2	15	5	3	11	19	18
12.....	5	6	4	8	5	14	15
13.....	2	7	7	4	9	20	15
14.....	1	3	2	7	7	5	15
15.....	2	8	2	8	6	6	9
16.....	1	4	6	5	7	8	10
17.....		3	2	5	4	5	6
18.....	1	3	3	7	3	5	6
19.....	1	2	7	2	1	10	8
20.....		3	2	3	3	5	8
21.....		1		5	1	7	6
22.....		3	1	2	1	1	6
23.....				1	2	4	4
24.....		2	1	1	1	3	5
25.....				2		2	3
26.....					1	3	.....
27.....		1		1	1	2	2
28.....			2	1	1	3	.....
29.....		2			1	1	1
30.....				1	1	4	2
31.....		1		1		1	.....
32.....			2	1			1
33.....							1
34.....			1			1	.....
35.....				1			2
36.....							1
37.....							1
39.....						2	1
40.....							1
41.....				1			1
42.....							1
44.....				1			.....
47.....	1						.....
51.....			1				.....
Median.....	461 0	1,044 1	907 1	647 1	719 1	1,405 1	1,098 1

The small community is constantly serving as a practice school for the large communities. After a little experience in the small community

the more ambitious are attracted to the larger places. A part of the remainder change occupation, and a small part of the group remain in the small cities.

*Experience in high schools.*—It is not infrequently said that one of the difficulties which high-school teachers have in dealing with the problems of the high school is that the teachers are not familiar with the work which is done in the elementary school. Table XXXI shows the exact amount of experience which the high-school teachers have had in non-secondary schools. This table should be read as follows: Of the 461 teachers working in cities of 2,500 or under, 248 had no experience in non-secondary schools; 49 had one year's experience in non-secondary schools; 45 had two years' experience, etc. There were 44 per cent of the teachers who had no experience in other than high-school work; 56 per cent had one year or less experience in other than secondary schools. The median teacher in cities of 2,500 or under had no experience in a non-secondary school. The median teacher in cities of larger size has had one year experience in a non-secondary school. Certainly the superintendent and high-school principal cannot rely upon this as a means of furnishing information to the teachers in the high school of the work that has been done in the grades. This table points to the necessity of the high-school principal or the superintendent giving specific instruction to the high-school teachers in regard to the work in the lower grades. On the other hand, this table indicates that a teacher who expects to teach in the high school need feel no fear of failure of getting a position without experience in non-secondary schools. There is no well-defined demand for this experience in high schools of any type.

#### TRAINING OF TEACHERS

*Teachers who are not college graduates.*—The North Central Association has for years had a requirement that the teachers in approved schools should be college graduates or the "equivalent." The points of equivalency have not been standardized to any considerable degree. Very striking differences exist, however, in different schools in the proportion of the teaching staff who are presumably "equivalent" to college graduates. Table XXXII shows the complete distribution for 592 schools reporting on this item. This table becomes clear when read as follows: Of the 70 schools in cities of a population of 2,500 or under, 33 employ no teachers who are not college graduates; 10 employ 1



teacher who is not a college graduate; 17 employ 2 teachers who are not college graduates; 5 employ 3 such teachers; 1 employs 4 such teachers; 3 employ 5 such teachers; 1 employs 6 such teachers, etc. From this table it is seen that about three schools out of four employ one or more teachers who are not college graduates. However, differences between the small city and large city are very marked in this particular, almost

TABLE XXXII

No. Not Graduates	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over	No. of Teachers
0.....	33	42	22	13	7	10	6	.....
1.....	10	43	31	15	10	8	3	120
2.....	17	28	23	13	16	12	8	234
3.....	5	16	11	14	13	12	4	225
4.....	1	5	6	5	2	12	2	132
5.....	3	3	4	.....	3	7	1	105
6.....	1	2	1	2	4	7	2	114
7.....	.....	.....	1	3	1	7	6	126
8.....	.....	2	3	.....	1	5	3	112
9.....	.....	1	.....	.....	.....	4	3	72
10.....	.....	.....	1	.....	1	3	5	100
11.....	.....	.....	.....	.....	1	.....	3	44
12.....	.....	.....	.....	1	.....	.....	3	48
13.....	.....	.....	.....	1	.....	.....	3	52
14.....	.....	.....	.....	.....	.....	.....	1	28
15.....	.....	.....	.....	.....	.....	.....	1	30
16.....	.....	.....	.....	.....	.....	.....	1	32
17.....	.....	.....	.....	.....	.....	1	.....	17
18.....	.....	.....	.....	.....	.....	1	.....	18
20.....	.....	.....	.....	.....	.....	1	.....	20
23.....	.....	.....	.....	.....	.....	.....	1	23
24.....	.....	.....	.....	.....	.....	.....	1	24
27.....	.....	.....	.....	.....	.....	.....	1	27
31.....	.....	.....	.....	.....	.....	.....	1	31
46.....	.....	.....	.....	.....	.....	.....	1	46
50.....	.....	.....	.....	.....	.....	.....	1	50
	70	142	103	67	59	90	61	1,776

half of the cities of 2,500 and under have no teachers who are not college graduates; while only one-tenth of the cities of 50,000 or over have no teachers who are not graduates of college. The fact that the large cities have teachers with much longer experience may mean that these teachers have been in the school system since the school was first placed on the list or it may mean that long experience in a good school system has come to stand for the "equivalent" of college graduation. It may be that the

small school feels a greater necessity for meeting the technical requirements of the Association in its every detail in an unquestioned manner than does the large school.

The 1,776 teachers who are reported as non-college graduates represent about one-fifth of the total number teaching in these schools. The great majority of these teachers are employed in the larger cities. Reference to the last column to the right indicates that some cities have as many as 50 teachers in their employ who are not graduates.

*Teachers who are graduates of college.*—Table XXXIII shows the distribution of the number of college graduates in the various high schools. The meaning of this table becomes clear when read as follows: Of the 72 cities with a population of 2,500 or under, one has 2 college graduates; 6 have 3 college graduates; 16 have 4 college graduates; 20 have 5 college graduates; 16 have 6 college graduates, etc. There are 6,491 college graduates reported as being employed in these schools.

The material found in this table in connection with that dealing with non-college graduates indicates the extent to which college graduation has become a standardized requirement for high-school teachers in the North Central territory. There seems to be only about one chance in five of a position being filled by a non-college graduate. For an inexperienced teacher the chance is probably very much less, so that it would seem safe to say that despite the fact that there are many non-graduates holding good positions the chance is very poor for a teacher who starts in today without being a college graduate.

*Professional and academic schooling of the teacher.*—The data showing the details of training for 7,045 teachers were distributed in order to find out the exact type and length of preparation made by the teachers. It was found that 1,040 of these teachers had received their education in normal school only; 5,109 in college and university only; and that 946 had taken a combined course in normal college or university.

Table XXXIV shows the number of years of training for the teachers who have done normal-school work only. This table should be read thus: In cities of 2,500 or under, 16 teachers were employed who had only one year of normal training; 29 with two years of normal training only; 7 with three years of normal training only; 26 with four years of normal training only; 4 with five years of normal training only. Reference to the right-hand column indicates that 187 of these teachers had

TABLE XXXIII

No.	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over	No. of Teachers
2.....	1	4	1	.....	.....	.....	.....	12
3.....	6	7	3	1	1	.....	1	57
4.....	16	26	9	1	.....	.....	1	212
5.....	20	37	18	5	3	2	1	480
6.....	16	33	22	9	3	2	3	528
7.....	9	24	18	13	15	8	1	616
8.....	2	20	17	12	8	5	2	528
9.....	1	3	7	6	10	8	3	342
10.....	1	1	7	4	4	4	1	220
11.....	.....	2	4	5	5	5	2	253
12.....	.....	.....	2	3	9	11	.....	240
13.....	.....	1	2	4	3	3	2	195
14.....	.....	.....	.....	2	1	7	2	168
15.....	.....	.....	.....	2	1	5	.....	120
16.....	.....	.....	.....	1	.....	5	.....	96
17.....	.....	.....	.....	.....	2	1	.....	51
18.....	.....	.....	.....	.....	.....	5	1	108
19.....	.....	1	.....	.....	1	7	.....	171
20.....	.....	.....	.....	1	.....	4	5	200
21.....	.....	.....	.....	.....	.....	3	.....	63
22.....	.....	.....	.....	.....	.....	3	4	88
23.....	.....	.....	.....	.....	.....	1	.....	23
24.....	.....	.....	.....	.....	.....	.....	1	24
25.....	.....	.....	.....	.....	.....	2	1	75
26.....	.....	.....	.....	.....	.....	2	1	32
28.....	.....	.....	.....	.....	.....	1	3	112
29.....	.....	.....	.....	.....	.....	.....	3	87
30.....	.....	.....	.....	1	1	.....	3	150
31.....	.....	.....	.....	.....	.....	1	1	62
32.....	.....	.....	.....	.....	.....	.....	.....	32
33.....	.....	.....	.....	.....	.....	.....	1	33
34.....	.....	.....	.....	.....	.....	1	3	136
36.....	.....	.....	.....	.....	.....	1	1	72
39.....	.....	.....	.....	.....	.....	1	1	78
40.....	.....	.....	.....	.....	.....	.....	2	80
42.....	.....	.....	.....	.....	.....	.....	1	44
44.....	.....	.....	.....	.....	.....	.....	1	44
47.....	.....	.....	.....	.....	.....	1	1	94
48.....	.....	.....	.....	.....	.....	.....	2	96
49.....	.....	.....	.....	.....	.....	.....	1	49
50.....	.....	.....	.....	.....	.....	.....	1	50
51.....	.....	.....	.....	.....	.....	.....	1	51
53.....	.....	.....	.....	.....	.....	.....	1	53
58.....	.....	.....	.....	.....	.....	.....	1	58
60.....	.....	.....	.....	.....	.....	.....	1	60
68.....	.....	.....	.....	.....	.....	.....	1	68
	72	159	110	70	67	98	62	6,491

TABLE XXXIV  
NORMAL SCHOOL ONLY

Total Years in Normal	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over	Total Number
1.....	16	18	22	25	35	32	39	187
2.....	29	61	51	31	65	75	34	386
3.....	7	32	35	20	26	39	27	256
4.....	26	51	28	6	27	32	14	184
5.....	4	7	3	2	1	2	2	21
6.....					1			1
7.....							5	5
	82	171	140	85	155	182	121	1,040

one year of normal training only; 386, two years only, etc. One striking fact that comes out clearly is that four-fifths of these people have studied less than four years in normal school.

Table XXXV shows the range of distribution for teachers who have received their training in college and university. Of the 382 teachers at work in cities of 2,500 or under, 17 had one year of college or university work alone; 36 had two years; 32, three years; 259, four years, etc. Reference to the right-hand column reveals the fact that 193 had one year only of college or university training; 985, or less than one-fifth, of these people have had less than a four-year course. On the other hand,

TABLE XXXV  
COLLEGE OR UNIVERSITY ONLY

Total Years in University	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over	Total Number
1.....	17	31	28	19	23	32	43	193
2.....	26	47	64	39	53	88	61	379
3.....	32	64	54	40	54	91	78	413
4.....	259	667	426	362	428	690	489	3,321
5.....	35	99	64	77	75	158	115	433
6.....	7	26	26	18	22	49	50	268
7.....	2	10	7	5	3	17	23	67
8.....	2	3	1		2	1	11	20
9.....	2	2	1		2	2	1	10
10.....							3	3
12.....		1				1		2
	382	950	671	560	662	1,129	874	5,109

790, or almost one-sixth, of these people have had more than four years' training. The latter figure is an indication of the extent of advanced preparation.

Table XXXVI shows the distribution of the teachers who have had training both in normal and college or university courses. Of the 46 cities of 2,500 and under having teachers who have had a combined normal

TABLE XXXVI  
COMBINED NORMAL AND COLLEGE OR UNIVERSITY COURSE

TOTAL YEARS		UNDER 2,500	2,501 TO 5,000	5,001 TO 7,500	7,501 TO 10,000	10,001 TO 15,000	15,001 TO 50,000	50,001 AND OVER	TOTAL
Normal	College								
2	1...	1	8	7	4	5	5	5	34
3	1...	2	7	10	4	4	14	11	52
	2...	1	14	7	7	8	15	9	62
4	1...	3	7	5	4	5	9	6	37
	2...	2	9	14	13	12	27	5	104
5	3...	1	10	5	7	10	12	4	49
	1...	4	11	8	9	14	18	9	73
6	2...	3	9	6	5	9	10	10	53
	3...	1	4	13	10	5	12	13	62
7	4...	1	5	12	11	7	4	7	54
	1...	5	3	4	.....	3	3	7	25
8	2...	4	7	15	8	4	8	9	53
	3...	3	1	11	2	4	6	11	51
9	4...	2	.....	6	8	5	11	16	55
	5...	1	1	1	5	1	1	1	12
10	1...	6	.....	2	1	.....	2	.....	6
	2...	5	1	1	2	.....	1	3	11
11	3...	4	.....	4	.....	6	3	6	22
	4...	3	.....	9	5	2	7	12	45
12	6...	1	.....	1	.....	.....	1	.....	2
	5...	2	.....	1	.....	1	.....	1	4
13	1...	7	.....	2	.....	.....	1	1	4
	6...	2	.....	.....	1	1	.....	2	4
14	2...	6	.....	1	.....	1	.....	1	3
	4...	4	1	7	6	3	3	5	31
15	3...	5	.....	2	.....	1	.....	2	5
	5...	3	1	1	1	.....	1	1	6
16	3...	6	.....	1	.....	.....	.....	.....	1
	2...	7	.....	.....	.....	.....	.....	.....	.....
17	5...	4	.....	.....	1	.....	.....	1	2
	4...	5	.....	3	2	.....	2	.....	7
18	6...	4	.....	1	.....	.....	.....	.....	1
	2...	8	.....	1	.....	1	.....	.....	2
19	7...	5	.....	.....	.....	.....	.....	1	1
20	13	4...	9	.....	.....	.....	.....	1	1
21	14	2...	12	.....	.....	.....	.....	.....	.....
		46	188	125	94	127	195	137	936

and university course, 1 has gone to normal school only one year and to college two years; 2 to normal school two years and one year to college; 1 to normal school one year and three years to college; 9 to normal two years and to college two years; 1 went three years to normal and one year to college; 4 went one year to normal and four to college; 4 had two years in normal and three years in college; 4 had three years in normal and one year in college, etc.

Reference to the right-hand column indicates that almost 150, or about one-sixth, of these teachers have had less than four years of combined work in the normal and college or university course. On the other hand, 500, or over half, have had more than four years' combined preparation.

Table XXXVII shows the total distribution of the training of teachers in the different-sized cities. This table should be read as

TABLE XXXVII

	CLASS OF TOWN							Total
	A	B	C	D	E	F	G	
Normal only.....	82	171	140	85	155	182	121	1,040
College or university.....	382	950	671	560	662	1,129	874	5,059
Combined.....	46	188	125	94	127	195	137	936

follows: In cities of 2,500 or less, 82 of the teachers have had normal training only; 382, college or university training only; and 46 had a combined type of training. Reference to the right-hand column indicates that 1,041 were trained in the normal school; 5,059, in college or university, and 936, in normal and college or university.

In order to find out whether or not any striking differences are to be noted in regard to the selection of the different type of teachers in the different classes of cities, the percentages shown in Table XXXVIII have been calculated. This table should be read as follows: In towns of 2,500, 16 per cent of the teachers with any training at all have been trained in normal school only; 74 per cent in college or university only; and 10 per cent were trained in the two combined. It is to be noted that the range of difference is very slight in different-sized cities, for each type of training, which indicates that no particular type of city is given to the selection of a certain type of preparation. The college or univer-

sity is overwhelmingly predominant in the matter of the training of the teachers for high-school positions: 74 per cent of these teachers have had college or university training only; 13 per cent have had normal training only; and 13 per cent have had college and normal training combined, making a total of 87 per cent of these teachers who have come into contact with the college influence, and a total of 26 per cent of the teachers who have come into contact with the normal influence. These figures indicate that the college or university is chiefly responsible for the preparation of teachers for the high school. This certainly suggests that the college and university should take specific recognition of the fact that they are training the large majority of the teachers for the North Central high schools. School men should insist upon it that a part of this preparation should be along the lines calculated to be of specific value to the teacher in the high school.

TABLE XXXVIII  
PERCENTAGE TABLE OF ABOVE

	CLASS OF TOWN							Total
	A	B	C	D	E	F	G	
Normal only.....	16	14	16	12	16	12	10	13
College or university.....	74	72	71	75	70	74	76	74
Combined.....	10	14	13	13	14	14	14	13

The fact that the large majority of these teachers are trained in college is of importance in connection with the criticisms which are not infrequently made by college men. The teachers are largely what the colleges have made them. At least a part of the burden of responsibility for inefficiency on the part of the high-school teachers is chargeable to the college. One way of getting better results in high school will be to give more serious attention to the training of these teachers in college or university. The growing independence of the high school as an institution is surely safeguarded from the point of view of the university from the fact that the people in charge of the high schools are for the most part products of university training.

*Degrees of teachers.*—The North Central Association requires that all teachers be college graduates or the equivalent. Each teacher is required to furnish information as to the exact degree held and the name of the

institution from which the degree was received. Table XXXIX shows the different degrees reported and the total number of degrees held by the teachers in the schools. The variation in the degrees earned by these teachers is interesting. Of the twenty-six different degrees reported, over half of the Bachelor's degrees are in the department of arts. About one-eighth of the teachers hold Bachelor's degrees from the department

TABLE XXXIX

Degrees of Teachers	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over	Total
A.B.	158	370	364	258	297	433	370	2,450
B.S.	37	102	85	56	67	164	101	612
Ph.B.	34	76	75	45	51	106	82	469
M.A.	14	20	23	12	15	55	77	218
M.S.		13	8	3	3	11	6	54
LL.B.		1	2		3	1	6	12
B.A.	44	48	55	31	31	45	106	360
B.L.	5	8	7	3	2	20	23	68
Ph.D.		9	4	2	2	5	17	39
Ph.M.		2	2	2	1	1	1	9
B.D.	2	10	5	3	23	6	7	55
A.M.	7	28	30	30	40	52	66	323
Ph.C.	1							1
LL.D.							2	2
D.S.		2			1			3
S.B.	3	7	1	6	3	2	1	23
D.D.		1						1
M.D.		2	2		5	5	3	17
B.Ph.	1	2		1	3	2	4	13
M.L.		2			1		3	6
B.M.		1	1	1		1	1	5
B.P.L.			1		1			2
Ag.B.	2		2					4
B.C.		1			1		3	5
C.E.							1	1
M.E.		1						1
	308	706	667	453	550	909	879	4,856

of Science; one-ninth hold degrees in law or philosophy; one-eighth of the teachers hold Master's degrees, the large majority of which are in arts. Less than 1 per cent hold the degree of Doctor of Philosophy. The scattering degrees represent different amounts of work; e.g., B.D. represents quite generally only two years of collegiate work.

*Tenure.*—The length of time a teacher serves in a single position is an important item of administration. Table XL shows the distribution



of terms for 6,617 teachers. This table should be read thus: In cities of 2,500 or under, 230 teachers were serving their first year; 117, their

TABLE XL

Total No. Years	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over
1.....	238	472	337	236	260	509	297
2.....	117	239	208	154	138	246	135
3.....	42	147	117	98	92	183	120
4.....	27	73	76	47	64	132	76
5.....	21	58	38	33	44	62	49
6.....	12	37	29	26	22	60	59
7.....	7	40	29	21	16	46	50
8.....	5	26	15	13	22	38	32
9.....	3	17	18	9	10	19	40
10.....	4	8	7	14	11	29	57
11.....	4	7	4	7	8	9	25
12.....	1	4	7	6	7	21	24
13.....	1	4	6	4	6	21	22
14.....	1	6	7	3	5	9	18
15.....		9	8	4	4	13	20
16.....	1	1	3	3	4	9	13
17.....			5	3	6	7	8
18.....	2	2	2	5	3	8	9
19.....		3	1	1	2	3	8
20.....	1	1	2	3	4	3	11
21.....		4	1	3	2	2	6
22.....		1	1	2	1	5	5
23.....				1	3	5	5
24.....				3		4	2
25.....		2	2	1	3	7	9
26.....	1		2		1	4	6
27.....			1				3
28.....	1			1		1	1
29.....		4			1	2	8
30.....			1		2	4	4
31.....		2		1		1	3
32.....							3
33.....			1		1	1	
34.....			1				
35.....						3	2
36.....			1			1	
38.....							1
40.....							1
41.....			1				
	489	1,167	929	702	742	1,456	1,132

second year, etc. The range of service varied from less than 1 year to 41 years. However, the tenure of a majority of teachers was relatively short. Over one-third of all the teachers were serving their first year.

Certain differences were found in cities of different size. About one-half of the teachers in cities of 2,500 or less were serving in their first year; two-fifths in towns of 2,500 to 5,000; one-third in cities of 5,000 to 7,500; one-fourth in cities of 50,000 or over. The median tenure for cities below 50,000 was one to two years and in cities above 50,000, four years. In consideration of the facts brought out earlier in the study that the large cities pay larger salaries and have more experienced teachers, we should have no reason to be surprised at the longer tenure. The various forces combine in making greater stability of the teaching population. We know little of the real significance of the rapid shift in the teaching population; but surely the cities with an inexperienced, poorly paid, and rapidly shifting teaching population are contending with a serious problem.

#### SUMMARY

One value of such a presentation of facts concerning the administration of high schools is that it affords a simple means of comparison whereby any school may be ranked in reference to the administrative features considered. The numerous distribution tables and medians furnish a basis for ready reference which should enable school authorities to make an intelligent survey of conditions in high schools as to size, organization, and instructional staff. The following tabulated summary of medians should be helpful in this connection.

Table XLI should be read thus: In the 74 cities of class A (in terms of medians) the high-school enrolment is 109, there are 20 students per teacher, there are 23 recitations per day, two of which are taught by the superintendent, whose salary is from \$1,401 to \$1,500. The principal receives from \$801 to \$850. The maximum salary is from \$701 to \$750; the minimum salary is from \$551 to \$600. The teacher in this school has had three years' experience.

*Generalizations.*—There is wide variation from state to state in the number of schools conforming to the standards of the North Central Association; in the size of cities maintaining such schools, in the enrolment of the high schools and in the number of teachers teaching in these schools.

There is wide variation from small to large cities in the number of recitations offered in the school; in the number of recitations taught by

the superintendent; in the number of recitations taught by the teacher; in the length of the recitation period; in the length of the school year; in the size of classes; in the salaries; in the experience; in the tenure; in the sex of teachers and principals; and in the proportion of non-graduates.

TABLE XLI  
TABULATED SUMMARY OF MEDIANS

	CLASS OF TOWNS						
	A	B	C	D	E	F	G
	Under 2,500	2,501 to 5,000	5,001 to 7,500	7,501 to 10,000	10,001 to 15,000	15,001 to 50,000	50,001 and Over
1. No. towns.....	74	162	111	69	67	101	73
2. Median enrolment.....	109	162	175	243	250	450	841
3. Median number students per teacher.....	20	20	20	20	20	20	25
4. Median number recitations	23	29	34	47	49	70	107
5. No. classes taught by super- intendent.....	2	2	1	0	0	0	0
6. Salary of superintendent...	\$1,500*	\$1,600	\$1,800	\$2,000	\$2,000	\$2,500	\$5,000
7. Salary of principal.....	\$ 850*	\$1,000	\$1,100	\$1,300	\$1,400	\$1,800	\$3,000
8. Maximum salary of teachers	\$ 750*	\$ 750	\$ 850	\$ 950	\$1,100	\$1,150	\$1,600
9. Minimum salary of teachers	\$ 600*	\$ 600	\$ 650	\$ 700	\$ 700	\$ 500	\$ 800
10. Years' experience teaching .	3	4	4	4	5	5	8
11. Median tenure.....	1	2	2	2	2	2	4

\* In the \$1,500 group, etc.

Although the median high-school enrolment increases as population increases, it does not increase in the same ratio. Small high schools are found in cities of every class. In the same way it can be said that the number of teachers increases with the enrolment, yet the correlation is not perfect. Eleven- or twelve-teacher schools vary in enrolment from less than 100 to more than 450. The median ratio of 20 students per teacher seems to have become a standard in cities with a population of less than 50,000. The same overlapping is to be noted in the number of recitations taught in each school. Schools offering 21 to 25 recitations per day are found in cities of every class, despite the fact that there is a median increase in the number of recitations as the population increases. The percentage of superintendents who teach decreases from 91 per cent

in the small cities to 13 per cent in the cities with a population of 50,000 or over. The recitation period tends to be longer in the larger cities although the overlapping is such that small cities have long recitations and vice versa. The large cities show a larger proportion of classes with more than 30 pupils. Practically all of the superintendencies are filled by men, although women are represented in cities of almost every class. Women are filling almost one-fifth of the principalships, but the percentage decreases from 43 per cent in the small cities to 3 per cent in the cities of 50,000 or over. Women are filling 69 per cent of the teaching positions, but the percentage decreases from 80 per cent in the small cities to 63 per cent in the cities of 50,000 or over. The salaries for each class of worker increase from small to large cities, the increase being least for minimum salaries and greatest for superintendents. The median experience of teachers increases from 3 years in the small city to 8 years in the city of 50,000 or over. There seems to be no difference in the amount of experience these teachers have had in the elementary schools. About one-fifth of the teachers are not college graduates. The small cities, however, employ relatively few of them. About one-eighth of the teachers receive their training in the normal school alone, and about one-eighth receive their training in normal and college combined. The rest receive such training as they have in college or university. No difference in this particular is noticeable in the towns of different size. One-half of the holders of Bachelor degrees have the degrees in arts. One-eighth of the teachers holding degrees hold the Master's degree. One-third of all of the teachers were serving their first year. The median tenure for cities below 50,000 was one to two years—for cities above 50,000, four years.

The small high schools vary less from the standards of the Association than do the large high schools.

*Suggested conclusions*—The obvious conclusion from this array of facts is that the standards set up by definition are not carried out in practice. No group of men, no matter how intelligent they may be, can by the pooling of opinions agree upon a list of standards that will serve equally well all high schools. All high schools cannot be made to conform to a list of a priori standards for the reason that there are other determining forces, both within and without the given school. As a rule, conditions found in a given school are a rough portrayal of the educational sentiment of the community. Generally speaking, good schools

are found in good communities. On the other hand, the condition of a given school is not necessarily an index of what the community can do for the school. Because this is true the inspectors in this Association are doing missionary work of a high order when they stimulate lethargic or backward cities to higher standards.

Because of the insistence of the democratic demand that there must be equal educational opportunities for all, small communities are taxing themselves heavily to provide as good schools as are supported by larger communities. These more or less theoretical considerations may account for the fact that small schools are meeting the North Central standards in large numbers.

One of the least valuable and yet most interesting parts of this investigation deals with the distribution of teachers as to sex on three teaching levels, viz., superintendencies, principalships, and teaching positions. The proportionate number of women engaged in education decreases in the direction of the more purely executive positions. The fact that we now find them in large numbers in the high-school principalships and fairly represented in the superintendencies may be prophetic of the future.

From the foregoing data a high-school teacher, principal, or superintendent may easily determine his expectancy as expressed in salary. He can tell whether he receives more or less than the median salary. Of course, there is a fallacy in all such expectancy tables. A particular teacher or principal may be receiving all or more than he is worth and still be in the poorest paid one-third of his class. An insurance actuary, if asked by someone, "What is my expectancy in life?" should reply, "I don't know what *your* expectancy is. It may be two months or forty years. But the expectancy of men of your age is so much." Similarly no individual teacher can determine with any certainty what *his* expectancy is. He can only determine with a fair degree of accuracy what the expectancy is for teachers of his training, experience, habits, and the like. In spite of these limitations, salary tables in cities of a given size do furnish a better basis than none for determining the actual and probable incomes of superintendents or teachers.

The salary tables show that there is a direct correlation between the salary paid and the size of the place, and that the variability and range is greater in large places than in small places. This condition is responsible for much of the shifting of the teaching population from position

to position. The greater money rewards are found in the larger places. Frequently the only way for a teacher to be rewarded, i.e., to get an increase in salary, is to move. It is a misfortune that many communities let the competent go with the incompetent. Communities need to be stimulated to pay good teachers higher salaries so as to insure greater stability of location among teachers. A campaign should be inaugurated for this purpose.

There are no tables in this report of more significance than those showing the experience of teachers. They show that there is little permanency in the teaching corps. With enough vacancies occurring in three or four years to equal the total number of high-school teachers, the school superintendent confronts a constantly recurring problem, that of training the recruits in the methods of schoolroom procedure. This problem is accentuated by the fact that one-half of the high-school recruits are inexperienced, for these data show that the inexperienced teacher stands an even chance of getting his initial experience in a high school. Moreover, there is no good reason to believe that the successful elementary experience of the others is a sure indication of success in the high school. A closer articulation of the two divisions of the schools is not being secured by advancing grade teachers to high-school positions. The task of providing adequately trained people for high-school teaching positions plainly rests with higher educational institutions. Colleges and university schools of education and departments of education are an expression of the desire of the public in regard to this matter. But until the rewards are greater and aroused public consciousness insists upon the employment of only those who are adequately trained, results will be far from satisfactory. One high-school teacher out of every five is not a college graduate. Three high schools out of every four employ one or more undergraduates, in spite of the standards set up by the North Central Association.

This discussion of the results of this investigation may be summarized as follows:

1. Standards determined by definition are not uniformly applied in practice.
2. The problem of administering a system of schools varies in complexity according to the size of the community, the enrolment of the school, the size of the classes, the number of classes, and the character of the teacher.

3. The number of recitations and the potential flexibility of the curriculum and variety of appeals afforded in a given type of schools increases in direct ratio to the size of the community represented.
4. Feminization increases as the amount of executive work decreases.
5. Expectancy as expressed in salaries and tenure increases with the size of the place.
6. Professionalization in teaching rests at present with the more experienced teachers in the larger places.







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